



## Happy Isles Fen Ecological Restoration

### What is a fen?

A fen is a peat-forming wetland that is fed by moving groundwater (as opposed to peat bogs, which are formed by rainwater). Fens are most common in the Midwest, central Canada, and Northern Europe, but the Sierra Nevada's dry summers do not often support the wet conditions needed for the formation of peat. Therefore, Yosemite's fen is an extremely unique area.

The Happy Isles Fen, a 2-acre wetland immediately west of the Nature Center at Happy Isles, is a rare example of a Californian fen ecosystem. Formerly the fen covered about 3 acres of the Happy Isles area in two distinct arms. But in 1928, the National Park Service created a parking lot on the eastern arm of the fen, using river sand to fill the wetland.

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### What is this project about?

National Park Service ecological restoration and vegetation management staff will restore the filled wetland to a functional fen habitat and create interpretive exhibits describing the importance and rarity of the ecosystem to Yosemite Valley. Restoration of the eastern arm of the fen will greatly increase the amount of this type of wetland habitat in the Valley, and provide for greater visitor enjoyment and education.

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### What type of work will be completed?

During the fall of 2002, ecological restoration teams began salvaging selected plants at the restoration site. Equipment was used to remove river-sand fill and the underground drainage system on the site to expose the original soils. The area was then contoured according to an approximation of the site's topography in 1919.

Crews will revegetate the site with seedlings, cuttings, and mature salvage plants; construct a protective split-rail fencing around the revegetated area; and redesign wayfinding as necessary—connecting the shuttle bus stop, the Nature Center at Happy Isles, and the existing fen boardwalk. Lastly, interpretive exhibits describing fen ecology and the restoration process will be designed and installed.

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### What happens after restoration is complete?

Over the next 5 years, ecological restoration staff will continue to monitor both the restoration site and the baseline reference site. In particular they will monitor vegetation, groundwater elevation, and groundwater quality.

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